

**REMARKS**

Claims 1, 3, 5, 6, and 20 have been amended and claims 2, 4 and 10-19 have been canceled. Claims 1, 3, 5-9 and 20-22 remain in the application.

This preliminary amendment forms the submission required in 37 CFR §1.114 for a Request for Continued Examination as its amended and added claims patentably distinguish over previously cited art. In particular, the art that was cited in the Notice of References Cited and the Information Disclosure Statement by Applicant which were both included in the Office Action of September 21, 2005.

In this Preliminary Amendment, independent claim 1 has been amended to include the limitations of claims 2 and 4. Accordingly, claims 2 and 4 have been canceled and the dependency of claims 3, 5 and 6 appropriately altered. Independent claim 20 has also been amended. Claims 10-19 have been canceled. The claims have thus been reduced to 7 structural claims (1, 3 and 5-9) and 3 method claims (20-22).

The previously-stated structural limitations of claims 1, 2 and 4 have thus been simplified and clarified in claim 1 with claims 7 and 8 reciting embodiments of the medium of claim 1 and claims 5 and 6 reciting embodiments of the passbands of claim 1. The only limitation in claim 1 that was not explicitly recited previously is the "bandpass" limitation in the "bandpass filter" recitation. Support in the filed application may be found in the bandpass filters 42 and 82 respectively shown in FIGS. 2 and 4 and described, for example, at page 3, lines 15-22 and page 4, lines 30-35 of Applicants' specification. As noted, for example, at page 3, lines 23-24, these bandpass filters define respective communication channels of a data communication system.

For clarity, amended claim 1 is recited below without amendment indicators.

1. (currently amended) A data communication system, comprising:
  - a two-conductor medium;
  - a plurality of transceivers; and
  - sets of bandpass filters wherein:
    - a) the filters of each set are configured to define a respective one of a plurality of different passbands;
    - b) each of said transceivers includes an amplifier coupled to said medium and includes a filter of each of said sets that is coupled to said amplifier to facilitate transmission of data signals through that filter to said medium; and
    - c) each of said transceivers includes receivers and includes a filter of each of said sets that couples a respective one of said receivers to said medium to facilitate reception through that filter of said data signals from said medium;
- each of said sets thereby defining a respective one of different communication channels for communicating said data signals over said system.

Previously cited art has included that of Beyers, II et al. (hereinafter Beyers) (US 5,235,619) and that of Dinwiddie (US 6,481,013).

In his FIG. 2, **Dinwiddie** teaches “high pass frequency filters 86, 87” and “low pass filters 88, 89”.

**Beyers** states that his “FIG. 1 shows a typical TV distribution plant 100 for distributing cable television signals to a subscriber and for receiving upstream messages from a subscriber terminal” (column 9, lines 25-28).

Beyers observes that “in a typical reverse system, there are four video channels available: T7, T8, T9 and T10”, he recites their frequency allocations “cable television channel T7 (5.75-11.75 megahertz), T8 (11.75-17.75 megahertz), T9 (17.75-23.75 megahertz) and T10 (23.75-29.75 megahertz)”, and he notes that a selected one of these will provide a “6MHz reverse channel” (column 18, lines 20-21, column 1, lines 63-65 and column 17, line 60). After discussing various

considerations, Beyers selects the T8 channel by reasoning “however, there is typically considerable bandwidth within the T8 channel with low enough noise and interference levels to support reliable communications --- the present frequency diverse RF-IPPV system is designed to utilize this fact” (column 18, line 64 to column 19, line 1).

Thus, Beyers teaches a TV distribution plant which sends cable television signals downstream on a plurality of 6MHz-wide TV channels and sends upstream messages on a selected one of these 6MHz-wide TV channels. As Byers showed when specifying exemplary channels T7, T8, T9 and T10, cable television channels are 6MHz-wide with no frequency spacing between channels.

Because each of Byers’ television sets (130 in Byers’ FIG. 1) must be able to select and process any of the downstream TV channels, all of these downstream channels must be present at all times for selection by subscriber’s television sets. Because this:

- a) is already accomplished in Beyers’ distribution plant, and
- b) insertion of Dinwiddie’s high pass and low pass filters would not improve what is already accomplished, there is no suggestion to modify the downstream portion of Beyers’ TV distribution plant with Dinwiddie’s filters to try to thereby teach the limitations of Applicants’ claim 1.

Not only is no suggestion provided to modify Byers but, because adjacent 6 MHz-wide TV channels are positioned edge-to-edge, the insertion of Dinwiddie’s filters could only degrade Byers’ TV signals because practical filters introduce phase distortions at their band edges.

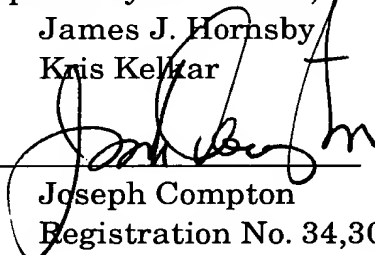
Because Beyers sends upstream messages on one selected TV channel, there is also no suggestion to modify the upstream portion of Beyers’ TV distribution plant with Dinwiddie’s filters as there are no other channels present.

MPEP 2143.01 states “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggest the combination”. Applicants have underlined a portion of this MPEP quotation to emphasize that, to show obviousness, it is not sufficient to find structures of Applicants’ claim 1 in the prior art. Rather, the prior art must also suggest the combination of those structures.

Because Beyers and Dinwiddie fail to provide suggestion to combine their structures and because such combination would actually degrade the system of Beyers, they cannot support a *prima facie* case of obviousness with respect to Applicant's independent claim 1. Accordingly, claim patentably distinguishes over the cited art. Because claims 3 and 5-9 add further limitations, they also patentably distinguish over the cited art.

Applicants have amended independent method claim 20 to better recite method limitations similar to the structural limitations of claim 1. For reasons detailed above, Applicants observe that the prior art does not suggest that Beyers be modified by Dinwiddie to produce the processes of claim 20. Accordingly, Beyers and Dinwiddie do not support a *prima facie* case of obviousness with respect to Applicants' claim 20. Applicants' claim 20 thus patentably distinguishes over the cited art and, because Applicants' dependent claims 21 and 22 add further limitations to claim 20, they also patentably distinguish over the cited art.

Applicants therefore request an early allowance of claims 1, 3, 5-9 and 20-22.

Respectfully submitted,  
James J. Hornsby  
Kris Kelkar  
By   
Joseph Compton  
Registration No. 34,308

KOPPEL, PATRICK & HEYBL  
555 St. Charles Drive, Suite 107  
Thousand Oaks, CA 91360  
(818) 788-6983